Title: Superconnections, twisted actions and positive scalar curvature

Authors: Varghese Mathai

Abstract: Using Quillen's superconnection formalism we give a new "twisted" approach to the rational Gromov-Lawson-Rosenberg (GLR) conjecture on topological obstructions to the existence of Riemannian metrics of positive scalar curvature on compact spin manifolds. In particular, we present a short proof of the rational GLR conjecture for word hyperbolic groups.